

## **DETAILED ACTION**

### ***Election/Restrictions/Notice of Non-Responsive Reply***

Applicant's election with traverse of a single invention in the reply filed on 4/30/08 is acknowledged. Also acknowledged is Applicant's amendments to the claims, amending claims 1, 3, 16, 21, and 33, and adding new claims 35-65.

The election is not fully responsive to the Requirement mailed 10/30/08.

In claim 16, Applicant elects the molecule wherein the sense strand includes a terminal cap moiety at both the 5' and 3' ends. However, Applicant's other elections with regard to claims 33 and 35-65 are either absent or unclear.

With regard to the listing of claims readable on the elected species/invention, Applicant provides multiple listings having different claims and no single, final, listing that takes into account all elections and lists only those claims that reads on each election. Additionally, Applicant's elections are on the whole unclear, as they are not specifically directed to each of the pending and newly added claims as written. For example, in claim 1 and claims dependent thereon, it would appear applicant is attempting to claim an invention in which the purines and pyrimidines are differentially modified, wherein the modified nucleotides may be in the sense or antisense strands or both, and wherein the two different modifications may be any two of those listed in claims 35. In claim 48 and claims dependent thereon, it would appear applicant is attempting to claim an alternative invention, distinct from that of claim 1, wherein the purines in one strand are differently modified from those in the antisense strand. However, applicant's elections in the remarks are not readily correlated with the claim language, making the analysis

difficult and requiring assumptions. Adding to the confusion is the lack of clarity in the claims with regard to the antecedent bases of several of the limitations therein. See Objections below.

Applicant's elections are deficient, i.e., not fully responsive, with regard to at least claim 33, which continues to recite two or more alternative embodiments. The Examiner fails to find a clear election with regard to claim 33.

Applicant is requested to review all claims therein for recitation of alternative and/or mutually exclusive embodiments, and make elections consonant with previous Requirement. For example, claims 37 and 38 appear to recite alternative combinations, and thereby two distinct embodiments, though it is difficult to construct a definite interpretation of the claims as now written. See Objections below. Applicant appears to have elected the embodiment of claim 39, but that is unclear.

The traversal is on the ground(s) that the molecules are capable of use together and have the same designs. This is not found persuasive because Applicant is not claiming a method of using a combination of molecules, and the molecules do in fact have materially different designs, as evidenced by the instant claims.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

Claim 21 is objected to as being dependent upon a canceled base claim, claim 7.

At least Claims 1, 35, 48, and 49, and claims dependent thereon are objected to because the limitations "the 2'-sugar modification of any of the pyrimidine nucleotides," "the 2'-sugar modification of any of the purine nucleotides" in claim 1 lack antecedent basis. Further

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confusing yet, claim 35 attempts to further define the invention of claim 1 by referring to "the 2'-sugar modification." The antecedent basis of "the 2'-sugar modification" recited in claim 35 is unclear. Whether claim 1 is reciting 1, 2, or three different sets of 2'-sugar, and what modification of these claim 35 is referring to is wholly unclear. Similar if not identical issues are present in claims 48, 49, and 50. For example, the limitation "the 2'-sugar modification of any of the purine nucleotides" in claim 48 lacks antecedent basis. Further, it is unclear which of the modifications in claim 48 (sense or antisense strand) "the 2'-sugar modification" of claim 49 is referring to. While the Markush of claim 48 would appear for intents and purposes to be alternative 2'-sugar modifications that may be in any of the purines, claim 50 confuses and appears to improperly broaden this interpretation by stating any of those alternatives of claim 49 may be in pyrimidine nucleotides. It is difficult to reconcile Applicant's elections with the claims as now written, and claims 35-65 as a whole continue to recite multiple distinct molecules, differing by the type and placement of the modifications, presence or absence and number of terminal caps and overhangs.

Representative for applicant is invited to contact the Examiner by phone for assistance if desired.

### ***Conclusion***

Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment.

EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Wollenberger whose telephone number is (571)272-8144. The examiner can normally be reached on M-F, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James (Doug) Schultz can be reached on (571)272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Louis Wollenberger/  
Examiner  
USPTO, Art Unit 1635  
July 10, 2008